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Does Cigarette Smoking Cause Lung Cancer?

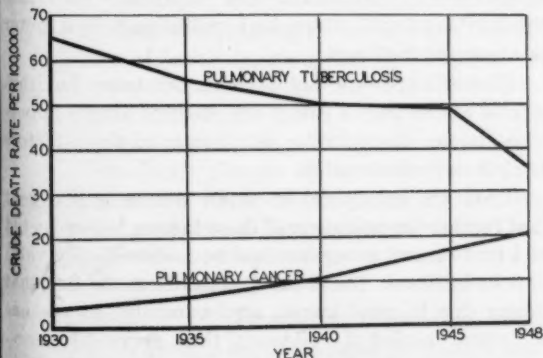
By LESTER BRESLOW, M.D., Chief,
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Lung cancer mortality has increased sharply in the United States during recent decades. This cannot be attributed to improvements in diagnostic technique and skill since the increase among males has been approximately twice as great as that among females. It can hardly be assumed that diagnostic methods have improved to a substantially greater extent for males than for females. Other evidence, such as the increasing proportion of deaths attributed to pulmonary cancer by autopsy,^{1, 2} also indicates that the increase has been substantial and real.

Among males in the United States pulmonary cancer will shortly, perhaps this year or next, exceed pulmonary tuberculosis as a cause of death.

Figure 1

MORTALITY TRENDS—PULMONARY TUBERCULOSIS AND PULMONARY CANCER—MALES, UNITED STATES, 1930-1948



SOURCE:
Mortality data—Annual Reports of U. S. Dept. of Commerce, Bur. of Census and Fed. Sec. Agency, U.S.P.H.S., Nat. Office of Vital Stat.
Population data and estimates—Reports of U. S. Dept. of Commerce, Bur. of Census.

For many years it has been suggested that there may be some relationship between cigarette smoking and lung cancer. A British Medical Journal comments, "It is not easy to adopt an unbiased attitude to the concept that smoking may cause cancer: we are all either smokers or nonsmokers and each group may regard the other as prejudiced. It is said that the reader of an American magazine was so disturbed by an article on the subject of smoking and cancer that he decided to give up reading."³

Whether cigarette smoking does cause lung cancer is an important public health question. It is a matter which involves a disease of increasing frequency with a high fatality rate, and a habit which is already common and still growing. As in the case of some other important public health problems it concerns an industry which has considerable economic significance to the Country.

Since this question is receiving increasing attention in the medical as well as public press and since it readily excites opinion formation and pronouncement, it seems desirable to summarize the evidence and the investigators' conclusions from recent controlled epidemiologic studies of the problem.

Doll and Hill⁴ have made a preliminary report of an investigation which included interviewing pulmonary cancer patients and a control series consisting of noncancer patients, with respect to smoking habits. The cases and controls, obtained in several London hospitals, were comparable as to age, sex and social class. Table 1 is (modified) from their report.



Table 1
Most Recent Amount of Tobacco Consumed Regularly by Smokers Before the Onset of Present Illness: Lung Carcinoma Patients and Control Patients With Diseases Other Than Cancer

Males		Number smoking daily				
Lung carcinoma patients		1 cig.	5 cigs.	15 cigs.	25 cigs.	50 cigs. +
(647)	-----	33	250	196	136	32
(100%)	-----	(5.1)	(38.6)	(30.3)	(21.0)	(5.0)
Control patients						
(622)	-----	55	293	190	71	13
(100%)	-----	(8.8)	(47.1)	(30.5)	(11.4)	(2.1)

Doll and Hill subjected their data to a painstaking analysis, including an evaluation of the study techniques used and a detailed examination of possible biases. They then concluded that "smoking is a factor, and an important factor, in the production of carcinoma of the lung."

Levin, Goldstein and Gerhardt⁵ studied tobacco-usage history obtained routinely from all patients admitted to the Roswell Park Memorial Institute, Buffalo, New York, a state cancer hospital. Their data is shown (modified) in Table 2.

Table 2
Comparison of the Proportion of Cases of Lung Cancer Among Male Nonsmokers and Smokers of 25 Years' Duration or More at Roswell Park Memorial Institute, 1938-1948

	Lung cancer		
	Number of persons	Cases	Age-standardized rate
Nonsmokers, compared with-----	293	23	8.6
Cigarette smokers-----	600	128	20.7
Pipe smokers-----	353	33	8.6
Cigar smokers-----	263	22	8.5

Levin et al., concluded, "The data suggest, although they do not establish, a causal relation between cigarette * * * smoking, and cancer of the lung."

Wynder and Graham⁶ have reported the results of interviewing lung cancer patients with respect to cigarette smoking. In part, these cases (100) could be compared with a control series (186) from the same hospitals, all males and equated for age. This controlled part of the investigation is shown (modified) in Table 3.

Table 3
Amount of Smoking in Percentage Among 100 Male Patients With Cancer of the Lungs and 186 Male Patients With Other Chest Diseases, Having the Same Age and Economic Distribution

	Number cigarettes per day for 20 years					
	0	1-9	10-15	16-20	21-34	35+
Cancer (100%)-----	0	5.0	7.0	35.0	30.0	23.0
Noncancer (100%)---	14.1	10.6	11.4	40.9	14.6	8.4

Wynder and Graham concluded, "Excessive and prolonged use of tobacco, especially cigarettes, seems to be an important factor in the induction of bronchiogenic carcinoma."

Preliminary findings of a study by the California State Department of Public Health⁷ are consistent with those of the three groups quoted above. Lung

cancer patients and a control series of patients without cancer or chest disease are being interviewed to determine their smoking history and their occupational history. The cancer series and the control series are from the same hospitals and are equated for age and sex. Table 4 presents the data thus far analyzed with respect to cigarette smoking.

Table 4
Lung Cancer Cases and Controls: Number of Packages of Cigarettes Smoked per Day

		Number of packages smoked per day					
		0	0-1	1-2	2+	Unk.	
Lung cancer cases	(144)	13	5	28	73	22	3
	(100%)	(9.0)	(3.5)	(19.5)	(50.7)	(15.3)	(2.1)
Controls	(144)	44	16	27	50	5	2
	(100%)	(30.5)	(11.1)	(18.8)	(34.8)	(3.5)	(1.4)

The California investigators noted the striking consistency of results in these several studies which were conducted independently in London, New York, Missouri and California at about the same time. They further observed "For more convincing evidence on the role of cigarette smoking it would be well to assemble a population of heavy smokers, mild smokers and non-smokers, equated for age and sex, and observe the pulmonary cancer mortality rate among the various groups."

From the data published it cannot be concluded that cigarette smoking is the cause of lung cancer. As a matter of fact lung cancer occurs in persons who state that they have never smoked. However, the recent well-controlled studies reveal a consistent positive correlation between lung cancer and cigarette smoking; a correlation which increases steadily with the amount of cigarette smoking. This relationship brings one back to the conclusion of Doll and Hill, "Smoking is a factor, and an important factor, in the production of carcinoma of the lung."

Other factors have also been demonstrated to be significant in pulmonary cancer, including exposure to chromate ores,⁸ radioactive ores⁹ and other materials. Stocks¹⁰ has found atmospheric pollution to be a factor in cancer of the lungs.

Hence it appears that not one, but many environmental agents play a role in the etiology of this important disease. The relative significance of these factors has yet to be determined.

From the standpoint of cancer control it is urgent that further investigation of these factors be conducted and that control programs based on scientifically valid data be initiated. The urgency arises from the fact that cancer due to most known environmental agents has a "latent" period of 5-30 years; thus, preventive measures introduced today would not begin to show their effect on the incidence rate for many years. For example, assuming cigarette smoking to be an important

factor in lung cancer, men in the age group 40-60 years who have smoked cigarettes excessively all their adult lives will probably continue to develop the disease at a high rate during the next 20 years—even if all cigarette smoking were to stop immediately.

The implications for public health are clear. Our responsibilities are to seek the evidence on this important question, to examine the evidence critically, and to act upon it.

Bibliography

- ¹ Bonser, G. A., *J. of Hyg.* 34:218, 1934.
- ² Hueper, W. C., *Occupational Tumors and Allied Diseases*, C. C. Thomas, 1942.
- ³ Editorial, *British Medical Journal*, 767, September 30, 1950.
- ⁴ Doll, R. and Hill, A. B., *Brit. Med. J.*, 739, September 30, 1951.
- ⁵ Levin, M. L., Goldstein, H., and Gerhardt, P. R., *J. A. M. A.*, 143:4, 336, May 27, 1950.
- ⁶ Wynder, E. L. and Graham, E. A.: *J. A. M. A.*, 143:4, 329, May 27, 1950.
- ⁷ Breslow, L., Abrams, H., and Ellis J., Environmental Aspects of Pulmonary Cancer, Seventh Annual Meeting, Public Health Cancer Association, St. Louis, October 30, 1950.
- ⁸ Mackle, W. and Gregorius, F., *Pub. H. Rep.* 63:1114, August 27, 1948.
- ⁹ Rostoski, O., Saupe, E., and Schmarl, G., *Ztschr. F. Krebsforsch.*, 23:360, 1926. Quoted by Lorenj, E., *J. Nat'l. Ca. Inst.* 5:1, 1944.
- ¹⁰ Stocks, P., Regional and Local Differences in Cancer Death Rates, *Studies on Medical and Population Subjects*, No. 1, General Register Office, 1947.

Clinical Lab Technicians Licensed

As an accompaniment of medicine's rapid advances in recent years, physicians have come to rely more and more on the results of clinical laboratory procedures. This in turn has magnified the importance of properly trained and qualified clinical laboratory technologists and technicians and of their responsibility for rendering reliable services which assist the physician in diagnosis and treatment of illnesses.

Since the Clinical Laboratory Act was enacted in 1937, the department has been responsible for the licensing of this class of personnel. To date it has, through the Division of Laboratories, issued 3,177 licenses to clinical laboratory technicians and 354 to technologists. Written examinations are given twice yearly in Los Angeles or in Berkeley, for which questions are compiled by the Merit System of the American Public Health Association. The questions are, in addition, reviewed by members of Technicians Advisory Committees cooperating with this department, and may be altered upon their recommendation.

An average of 225 persons take these examinations when they are given in the spring and fall of each year. Tabulation of results for the recent examination shows that 222 technicians and five technologists achieved passing grades.

State Department of Mental Hygiene Named Mental Health Authority

Effective July 1st, federal grant-in-aid funds provided by the National Mental Health Act are to be administered and distributed in California by the State Department of Mental Hygiene, which has been designated by Governor Warren as the Mental Health Authority for California. Previously, since adoption of the National Mental Health Act by the Seventy-ninth Congress in 1946, this function was carried out in California by the State Department of Public Health.

The change was recommended to the Governor by the state directors for the two departments, Dr. Frank F. Tallman, Director of the Department of Mental Hygiene, and Dr. Wilton L. Halverson, Director of the Department of Public Health. Development and expansion of the Department of Mental Hygiene's program in recent years prompted the request for redesignation of the State Mental Health Authority.

As in the past, the two departments will continue to work closely together in the administration and use of National Mental Health Act funds to develop further a total balanced mental health program.

Last fiscal year California received \$212,557 in federal mental health funds. About half of the funds (\$112,000) went to the State Department of Mental Hygiene for maintenance of mental hygiene clinics and for development of out-patient services in five state mental hospitals. The State Department of Public Health received \$39,000. Funds were also allocated to 15 agencies in 14 counties of California for use in local mental health programs.

Hospital Nursing Consultant

There is an opening in the State Department of Public Health for a Maternity Hospital Nursing Consultant. Requirements for appointment to this position are:

State Registration.

Four years experience, at least two years of which shall have been in administrative teaching or supervisory positions.

Graduation from college and completion of a postgraduate course of one academic year in supervision or administration of hospital nursing, or completion of a postgraduate clinical course of one academic year in a nursing specialty such as the care of maternity patients and newborn infants or pediatric nursing.

Further information in regard to this vacancy may be obtained by writing to the Bureau of Public Health Nursing, 760 Market Street, Room 751, San Francisco 2.

Public Health Assignments in Germany Taken by Two U. C. Professors

Dr. Jessie Bierman, Professor of Maternal and Child Health, and Dr. Dorothy Nyswander, Professor of Public Health Education, U. C. School of Public Health, have accepted special public health assignments in Germany during the summer and fall. Dr. Bierman arrived in Frankfurt June 27th to work with a joint mission of the Unitarian Service Committee to the High Commissioner for Germany. This American team is conducting public health institutes in Frankfurt, Munich and Dusseldorf for German public health personnel and students of hygiene in German medical schools.

Dr. Nyswander goes to Germany on a separate assignment at the request of Dr. Peter Brauner, formerly with the Orange County Health Department and now Chief of the Division of Public Health and Welfare, Office of the High Commissioner. From August 1st to November 1st she will work with German physicians and nurses in considering the educational phases of their activities. En route to Frankfurt, Dr. Nyswander is spending one week in Washington for orientation.

The committee with which Dr. Bierman is serving includes Dr. Haven Emerson, Chairman; Dr. Ernest Stebbins, Dean, Johns Hopkins School of Public Health; Dr. James Perkins, Medical Director, National Tuberculosis Association; Professor Ernest Boyce, Professor of Sanitary Engineering, University of Michigan; and Dr. Henry Work, Assistant Professor of Pediatrics and Psychiatry, University of Louisville, Kentucky. Before returning to U. C. in September, Dr. Bierman will take a brief vacation in England.

Directors of P. H. Nursing Wanted

There are openings in positions for directors of public health nursing in several small health departments in California. Requirements for appointment to these positions are:

- Completion of an approved program of study in public health nursing.
- Possession of a bachelor's degree.
- State registration and the State Public Health Nursing certificate.

Candidates must also have had three years of successful experience in public health nursing in a health department on a staff or supervisory level.

Further information in regard to these openings may be obtained by writing to the Bureau of Public Health Nursing, 760 Market Street, Room 751, San Francisco 2.

State P. H. N. Civil Service Examination

Public Health Nurse—Examination will be held August 16th, with final filing date July 26th. Salary range is \$268-\$325. California residence of one year prior to examination is required. Applicants must be either (1) registered nurse and have a certificate as a Public Health Nurse in the State of California, or (2) have completed academic training of an approved university program in Public Health Nursing, but have not completed field work required to qualify for a P. H. N. certificate. Appointment would be given after required field work and P. H. N. certificate had been granted.

Present vacancy is with the Department of Public Health, with headquarters in Berkeley. State-wide travel is involved. Applications are obtainable from the State Personnel Board in Sacramento, San Francisco, and Los Angeles, or from local Department of Employment offices.

P. H. Physician Wanted, San Diego

San Diego County announces an examination for a public health physician. Applications for this position will be received until further notice.

Applicants must have had at least two years of experience as a licensed physician practicing in a combination of two or more of the following specialties: venereal disease, communicable diseases, maternal and child health, or tuberculosis case finding. Salary range for the position is \$647-\$713 per month.

Further information is available from the Department of Civil Service and Personnel, Room 402, Civic Center, San Diego, California.

Analyst Position, Long Beach

Long Beach Health Department announces an examination for public health analyst. Salary range for the position is \$288-\$352.

Applicants should possess general knowledge of statistics, research methods, and survey techniques. Greater consideration will be given to those applicants who have some knowledge of the field of public health.

Further information is available from Dr. I. D. Litwack, Health Officer, Department of Public Health, 2655 Pine Avenue, Long Beach, California.

Health Officer Appointment

H. G. Mello, M.D., has been permanently appointed to the position of Health Officer of Solano County. He was previously given a 60-day temporary appointment following the resignation of L. S. McLean, M.D.

Dr. Legge, U. C. Professor Emeritus Is 1951 Winner of Knudsen Award

Annually the American Association of Industrial Physicians and Surgeons, now renamed the Industrial Medical Association, presents the William S. Knudsen Award to a physician for outstanding achievement in industrial medicine and related fields. This award is a single plaque signifying the highest esteem of the recipient's associates. Key figures in the fields of industrial medical practice, traumatic surgery, accident prevention and employee health promotion have been so honored.

This year the Knudsen Award has come to a Californian, Robert Thomas Legge, M.D., of Berkeley, who, in his long career, has made outstanding contributions not only in the advancement of industrial medicine, but has also gained distinction in the fields of community health and sanitation, as an educator, and as a pioneer of student health services on American campuses.

As chief surgeon for a lumbering company in McCloud, Siskiyou County, from 1900 to 1915, Dr. Legge revolutionized then current practices of industrial hygiene, directing the focus on prevention, and extending his interests to community health and sanitation. In 1915 he became Professor and Chairman of the Department of Hygiene of the University of California, the University Physician, and Director of the College Hospital at Berkeley. He was later appointed Lecturer in Industrial Medicine at the U. C. Medical School, San Francisco.

Doctor Legge organized the U. C. students' health service. In 1930 he was instrumental in the planning and building of the 100-bed Cowell Memorial Hospital on the U. C. Berkeley campus. Cowell was the first student's hospital approved by the American College of Surgeons.

Doctor Legge retired as university physician in 1937. He was appointed Professor Emeritus in 1942, a year in which he saw the "dream of his academic life" fulfilled in the creation of the School of Public Health by the University of California. He has published some 100 papers on medical, surgical and public health subjects, and has also contributed greatly to public health and preventive medicine through his affiliation in a number of professional organizations.

His collection of original manuscripts and books on industrial health, some dating back to the Middle Ages, is considered to be one of the finest in the world. This collection includes original copies of "De Morbus Artificum," (the diseases of workers), by Bernardino Ramazzini (1700), the father of industrial health. Dr. Legge was the first annual orator for the Ramazzini Society for Industrial Physicians.

California Tuberculosis Death Rate Drops to New Record Low

The Bureau of Tuberculosis Control has announced a sharp decline in California's tuberculosis death rate for 1950 which, for the first time since records have been kept, has brought this State's death rate below the rate of the United States as a whole.

Preliminary totals from the Bureau of Records and Statistics set the number of deaths for 1950 at 2,222, or a rate of 21 per 100,000. This is in contrast with 2,805 deaths, with a rate of 27.2 per 100,000 in 1949.

The United States death rate for tuberculosis is likewise dropping, but not as rapidly. From 1949 to 1950 the U. S. rate decreased from 25 to 23. In spite of the difficulty in making inter-censal year estimates, the trend of the tuberculosis death rate has been clear-cut. The rates 1940 to 1950 were:

1940	56.3
1941	51.9
1942	50.6
1943	45.7
1944	43.7
1945	43.4
1946	41.6
1947	34.4
1948	32.8
1949	27.2
1950 (Tentative)	21.0

It is noteworthy that the rate of fall has become very much accelerated since 1946, so that while the rate declined 20 percent from 1941 to 1945, it fell 50 percent from 1946 to 1950. Among factors contributing to this favorable trend are more extensive casefinding, streptomycin and other drug therapy, increased hospitalization of communicable tuberculosis, and changes in the composition of California's population.

Miss Walthall Joins Staff

Miss Naida Walthall has joined the staff of the California State Department of Public Health as a public health nurse in the Bureau of Acute Communicable Diseases. Prior to joining the department, she completed a three months' course in epidemiology for public health nurses which included three weeks of class work at the U. S. Public Health Service Communicable Disease Center in Atlanta, Georgia, and nine weeks of field work in Mississippi.

Miss Walthall is a graduate of the School of Nursing at St. Joseph's Hospital in Deadwood, South Dakota, and of the University of California at Los Angeles. Her public health nursing preparation was obtained at the latter institution. In addition to having hospital, tuberculosis sanatorium and Army Nurse Corps experience, she was a public health nurse with the Alameda County Health Department during 1949 and 1950.

U. S. P. H. S. Offers Epidemiology Course to Public Health Nurses

From February 15th to May 15th four California public health nurses were enrolled in the U. S. Public Health Service course on Epidemiology for Public Health Nurses at the Communicable Disease Center in Atlanta, Georgia. This was the second such course offered by the Public Health Service and the first one to which nurses other than members of the Public Health Service staff were admitted. The California nurses report that the course is most worthwhile.

Tentative dates for the next course are August 26 to November 18, 1951. A limited number of stipends will be available from the State Department of Public Health to enable nurses to take the course. Nurses employed in health departments and recommended by their health officers are eligible to apply for stipends. Further information regarding content of the course and procedure for applying for stipends may be obtained by writing to the Chief of the Bureau of Public Health Nursing, State Department of Public Health, Room 751, 670 Market Street, San Francisco 2.

The course is made up of a three weeks' block of classwork at the Communicable Disease Center and nine weeks of field experience. Field work is taken in Mississippi under joint supervision of the U. S. Public Health Service and the Mississippi State Department of Public Health. While taking the field work, students make their headquarters in Jackson, Mississippi, and travel to outlying counties in U. S. Public Health Service cars.

Emergency Levels for Radioactivity in Food, Water Established

Emergency conditions under which the public could use food and water contaminated by radioactivity following an atomic explosion have been outlined to state civil defense directors by the Federal Civil Defense Administration. Permissible emergency levels of radioactive contamination have been established by the Atomic Energy Commission.

Atomic explosions could result in dangerous radioactive contamination of exposed food and water. Civil defense "monitoring" teams, using currently available measuring equipment, can determine whether concentrations of radioactivity fall within the permissible limits established by AEC.

Civil defense officials state that water and food with radioactivity below the danger level could be consumed during an emergency. It is emphasized that permissible limits set by AEC are not for peacetime use, but are to be applied during periods of emergency only, and by responsible officials.

Margaret Cree Leaving State Service for Fresno Nursing Position

Margaret Cree, nursing consultant in school health, Bureau of Maternal and Child Health, is leaving the State Department of Public Health after 13 years of service to accept a position as director of school nurses for the Fresno City Schools beginning with the new school year. She will also serve by contract agreement as nursing consultant to the Fresno County schools office an average of one day per week.

When Miss Cree joined the department 13 years ago she was assigned as district supervising nurse, with headquarters in Fresno. In 1941 she transferred to San Francisco as nursing consultant in the Bureau of Maternal and Child Health, with part of her time devoted to school health. From 1943 to 1947 she served as nursing consultant in the department's rheumatic fever program as part of her responsibilities in the Bureau of Maternal and Child Health. For the last three years her assignment has been nursing consultant in school health.

Miss Cree has been a member of the State Joint Committee on School Health since the committee was organized in 1945.

Graduate Study Completed

Robert Drake, M.D., Medical Officer, Bureau of Acute Communicable Diseases, has returned to the department after a year's leave of absence attending the University of Michigan, where he obtained his master's degree in public health (M. P. H.). He has resumed his assignment as epidemiologist.

George L. Humphrey, D.V.M., Bureau of Acute Communicable Diseases, has returned after obtaining his M. P. H. at the University of California.

Ruth McCullagh, P. H. N., has returned to the Bureau of Public Health Nursing after a year's leave of absence to attend Teachers College, Columbia University. She received an M. A. degree, her major being public health nursing supervision.

Bulletin on Aging

A new bulletin called "Aging" is being published by the Federal Security Agency to serve as a medium for sharing information about programs and activities among agencies and organizations in the field of geriatrics. This bulletin is available without charge to agencies, their staffs and board members, and other interested individuals by writing to Mr. Clark Tibbitts, Chairman, Committee on Aging and Geriatrics, Federal Security Agency, Washington 25, D. C.

Deaths by Cause in California, 1950

The current release of provisional 1950 figures, showing deaths occurring in California by cause, marks the second year that causes of death in this State have been classified according to the Sixth Revision of the International List of Causes of Death, as adopted by the World Health Organization in 1948 at Geneva, Switzerland. Since this Sixth Revision has applied an entirely new method of classifying causes of death, specific causes of death in 1949 and 1950 for California cannot be reasonably compared with those for prior years, when the Fifth Revision of the International List was used. With the compilation of 1950 figures, for the first time a direct comparison of specific death rates is available for two consecutive years based on this new method of classification of causes of death.

The table indicates that both the number of deaths and the rates for most causes have decreased in 1950 as compared to 1949, although the amount of decrease varies considerably for the various causes. A notable exception is the increase in the number of deaths from

diabetes. A slight increase will be observed in the deaths from neoplasms of the lymphatic and hematopoietic tissues (includes Hodgkin's Disease and leukemias). However, consideration must be given to the 2,643 deaths in 1950 where the causes have not yet been assigned and queries are still outstanding and to additional 1950 deaths registered after January 1, 1951. When further information is received on these deaths, the rates for at least some of the specific causes of death will be increased somewhat. The greatest increase will probably occur in the accidental death categories since many of the queries sent out were for further information on deaths from accidents.

The rate per 100,000 population in California for deaths from all causes by place of occurrence decreased from 941 in 1949 to 921 in 1950. These rates are somewhat lower than the estimated United States rates of 972 in 1949 and 962 in 1950. California has experienced approximately a 2 percent decrease in the total death rate in 1950 over 1949, whereas the entire United States had about a 1 percent decrease during the same period.

Deaths by Selected Cause: California, 1949-1950

(Exclusive of stillbirths. By place of occurrence)

Cause of death	Sixth revision international list number	Number		Rate	
		1950*	1949	1950*	1949
Total, all causes.....		97,536	100,395	921.3	941.3
Selected Communicable Diseases					
Tuberculosis of respiratory system.....	001-008	2,045	2,584	19.3	24.2
Tuberculosis, other forms.....	010-019	177	239	1.7	2.2
Syphilis, all forms.....	020-029	489	667	4.6	6.2
Typhoid fever.....	040	8	3	0.1	b
Diphtheria.....	055	36	55	0.3	0.5
Whooping cough.....	056	28	31	0.3	0.3
Polioymelitis.....	060, 081	109	140	1.0	1.3
Other infective and parasitic diseases.....	091-138, (Exclusive of those above)	285	416	2.7	3.9
Influenza.....	480-483	51	77	0.5	0.7
Pneumonia.....	490-493	1,745	2,019	16.5	18.9
Selected Diseases Usually Chronic in Nature					
Malignant neoplasms, total.....	140-205	14,620	14,991	138.0	140.6
Malignant neoplasms of the digestive organs and peritoneum.....	150-159	5,349	5,709	50.5	53.5
Malignant neoplasms of the respiratory system.....	160-165	1,587	1,579	15.0	14.8
Malignant neoplasms of the breast.....	170	1,538	1,502	14.5	14.1
Malignant neoplasms of the female genital organs.....	171-176	1,551	1,606	14.6	15.1
Malignant neoplasms, other and unspecified sites.....	140-199, (Exclusive of those above)	3,328	3,351	31.4	31.4
Neoplasms of the lymphatic and hematopoietic tissues.....	200-205	1,260	1,244	12.0	11.7
Benign neoplasms and neoplasms of unspecified nature.....	210-239	284	328	2.7	3.1
Diabetes mellitus.....	260	951	900	9.3	8.4
Vascular lesions affecting the central nervous system.....	330-334	10,036	10,144	94.8	95.1
Nephritis and nephrosis.....	590-594	1,155	1,253	10.9	11.7
Cirrhosis of the liver.....	581	1,746	1,878	16.5	17.6
Ulcer of the stomach and duodenum.....	540, 541	662	720	6.2	6.8
Hernia and intestinal obstruction.....	560, 561, 570	553	604	5.2	5.7
Selected Diseases Usually Chronic in Nature—Continued					
Diseases of the circulatory system, total.....		41,432	42,640	391.4	399.7
Rheumatic fever.....	400-402	66	85	0.6	0.8
Chronic rheumatic heart disease.....	410-416	1,459	1,668	13.8	15.6
Arteriosclerotic and degenerative heart disease.....	420-422	30,117	30,344	284.5	284.5
Other diseases of the circulatory system.....	430-468	9,790	10,543	92.5	98.8
Important Causes Limited to One Sex or Age Group					
Complications of pregnancy, childbirth and the puerperium.....	640-689	110	162	1.0	1.5
Diseases of early infancy, total.....		3,772	4,163	35.7	38.9
Birth injuries, postnatal asphyxia and atelectasis.....	760-762	2,018	2,223	19.1	20.8
Diarrhea of the newborn.....	764	28	32	0.3	0.3
Other infections of the newborn.....	763, 765-769	235	305	2.2	2.8
Other diseases peculiar to early infancy.....	770-776	1,491	1,603	14.1	15.0
Accidental and Violent Deaths					
Accidental deaths, total.....		5,756	6,517	54.4	61.1
Motor vehicle accidents.....	810-835	2,937	3,098	27.7	29.0
Other accidents.....	800-802, 840-965	2,819	3,419	26.6	32.1
Suicide.....	970-979	1,843	1,832	17.4	17.2
Homicide.....	980-999	443	485	4.2	4.5
Other Selected Causes					
Congenital malformations.....	750-759	1,170	1,230	11.1	11.5
All other specified causes.....		5,166	6,078	48.8	57.0
Senility and ill-defined causes.....	780-795	191	239	1.8	2.2
Cause not assigned, query outstanding.....		2,643			

* Provisional.

b Less than 0.05.

NOTE: For code numbers following cause of death refer to the Sixth Decennial Revision of International List of Diseases and Causes of Death. Rates are per 100,000 population.

SOURCE: State of California, Department of Public Health, Vital Statistics Records.

Public Health Service Examinations

Competitive examinations for appointment to the Regular Corps of the U. S. Public Health Service will be held September 4, 5, and 6, 1951, for *Medical Officers*.

Appointments, to be made in the grades of Assistant Surgeon (equivalent to Navy rank of lieutenant, j.g.) and Senior Assistant Surgeon (equivalent to lieutenant), are permanent in nature and provide opportunities to qualified physicians for a life career in clinical medicine, research, and public health.

Applicants for the assistant surgeon examination must have seven years of educational training and professional experience subsequent to high school; applicants for senior assistant surgeon must have 10 years.

Applications for these examinations must be filed with the Federal Security Agency, Public Health Service, Washington 25, D. C., before August 6th.

Board Members' Manual

The National Publicity Council has recently published a unique new handbook, "The Board Members' Manual," by Charlotte Demorest. This handbook, which is designed to help boards develop their own manuals and to train members, is the latest in the "How-to-do-it" series.

From the experience of agencies all over the Country, the author has been able to put together a complete guide to the creation of board member manuals which can bear fruit in improved board-staff relations, increased board efficiency, and higher board morale.

Review copies are obtainable from the National Publicity Council for Health and Welfare Services, Inc., 257 Fourth Avenue, New York 10.

Postgraduate Course Announced

A course designed to prepare psychiatrist and neurologists for the American Board of Psychiatry and Neurology will be given August 20th-October 26th at Langley Porter Clinic, San Francisco.

The course will be under the direction of Dr. Karl M. Bowman, Professor of Psychiatry, University of California School of Medicine, with assistance of staff members from the various divisions of the medical school. Fee for the course is \$200. For further information write to Stacy R. Mettier, M.D., Professor of Medicine, Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22.

California Morbidity Report—May, 1951

Civilian Cases

Reportable diseases	Week ending					Total cases	5-yr. median, 1946-1951	Total cases
	5-5	5-12	5-19	5-26	6-2	May	May	Jan.-May, incl.
Amebiasis.....	7	5	12	12	7	43	22	224
Anthrax.....			1			1		2
Botulism.....								8
Brucellosis (undulant fever).....	1	2	4	1	5	13	15	40
Chancroid.....	4	4	6	8	7	29	35	148
Chickenpox.....	1,245	1,303	1,356	1,376	1,051	6,331	4,959	26,096
Cholera.....								
Coccidioidomycosis, disseminated.....	1		2	2	2	7	7	29
Conjunctivitis, acute infectious of the newborn.....			1			1	2	4
Dengue.....								
Diarrhea of the newborn.....	1	1		6	3	2	9	14
Diphtheria.....	2	6	1	6	3	18	30	94
Encephalitis, infectious.....	32	43	32	28	25	160	146	683
Epilepsy.....	1	2	2	8	1	14	53	61
Food poisoning.....	227	209	212	223	188	1,059	634	3,381
German measles.....	311	306	284	340	283	1,524	1,857	6,963
Gonococcus infection.....							4	5
Granuloma inguinale.....							10	12
Hepatitis, infectious.....	37	10	17	9	7	80	65	318
Influenza, epidemic.....								115
Leprosy.....			1			1		4
Leptospirosis (Weil's disease).....			1			1		1
Lymphogranuloma venereum.....		1	4	3	3	11	17	43
Malaria.....				1		1	7	2
Measles.....	4,000	4,310	3,967	3,985	2,842	19,134	15,409	53,492
Meningitis, meningococcal.....	4	5	7	6	3	25	20	157
Mumps.....	558	478	526	532	436	2,530	4,827	10,158
Pertussis.....	74	64	57	74	54	323	1,145	1,153
Plague.....								
Pneumonia, infectious.....	55	39	45	32	22	193	130	1,240
Poliomyelitis, acute anterior.....	12	6	11	10	24	63	54	414
Psittacosis.....							1	3
Rabies, animal.....		1	3	2		6	23	30
Rabies, human.....								
Relapsing fever, acute ¹	11	8	2	7	1	29	60	115
Rheumatic fever, acute ¹				2		2		2
Rocky Mt. spotted fever.....								99
Salmonella infections ²	5		6	3	2	16	11	
Shigella infections (bacillary dysentery).....	5		11	9	13	38	20	184
Smallpox.....								
Streptococcal infections.....								
Resp. including scarlet fever.....	252	252	231	247	204	1,186	486	4,885
Syphilis.....	177	203	197	188	195	960	1,147	4,191
Tetanus.....		1	1			1	3	19
Trachoma.....							3	4
Trichinosis.....			1	1	1	3		8
Tuberculosis.....								
Respiratory.....	180	165	188	172	134	839	708	3,501
Other forms.....	8	6	15	9	9	47	54	186
Tularemia.....		1	1		1	3		4
Typhoid fever.....	1	4	1	2	1	9	8	25
Typhus.....								
Yellow fever.....								
						34,721		121,785

¹ Rheumatic fever cases over age 21 are excluded beginning January 1, 1951.

² All types of salmonella infections now reportable. Prior to January 1, 1950, only A, B and C types were reportable, hence five-year median not entirely comparable.

Accidents in the home are responsible for more deaths and injuries than any other accident classification; more than 30,000 people are killed and more than 5,000,000 injured every year in home accidents.—*Home Safety Review*.

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